

RECEIVED

NOV 07 2008

PTO/SB/68 (09-06)

Approved for use through 3/31/2007. OMB 0651-0031  
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

REQUEST FOR ACCESS TO AN ABANDONED APPLICATION UNDER 37 CFR 1.14

Bring completed form to:  
File Information Unit, Room 2E04  
2900 Crystal Drive  
Arlington, VA 22202-3514  
  
Telephone: (703) 308-2733

In re Application of

Kucherlapati et al

Application Number

08/112848

Filed

8/27/93

Paper No. 36

I hereby request access under 37 CFR 1.14(a)(1)(iv) to the application file record of the above-identified ABANDONED application, which is not within the file jacket of a pending Continued Prosecution Application (CPA) (37 CFR 1.53(d)) and which is identified in, or to which a benefit is claimed, in the following document (as shown in the attachment):

United States Patent Application Publication No. \_\_\_\_\_, page, \_\_\_\_\_ line \_\_\_\_\_

United States Patent Number 6713610, column 1, line, 1 or

WIPO Pub. No. \_\_\_\_\_, page \_\_\_\_\_, line \_\_\_\_\_

**Related Information About Access to Applications Maintained in the Image File Wrapper System (IFW) and Access to Pending Applications in General**

A member of the public, acting without a power to inspect, cannot order applications maintained in the IFW system through the FIU. If the member of the public is entitled to a copy of the application file, then the file is made available through the Public Patent Application Information Retrieval system (Public PAIR) on the USPTO internet web site ([www.uspto.gov](http://www.uspto.gov)). Terminals that allow access to Public PAIR are available in the Public Search Room. The member of the public may also be entitled to obtain a copy of all or part of the application file upon payment of the appropriate fee. Such copies must be purchased through the Office of Public Records upon payment of the appropriate fee (37 CFR 1.19(b)).

For published applications that are still pending, a member of the public may obtain a copy of:

the file contents; the pending application as originally filed; or any document in the file of the pending application.

For unpublished applications that are still pending:

- (1) If the benefit of the pending application is claimed under 35 U.S.C. 119(e), 120, 121, or 365 in another application that has: (a) issued as a U.S. patent, or (b) published as a statutory invention registration, a U.S. patent application publication, or an international patent application publication in accordance with PCT Article 21(2), a member of the public may obtain a copy of the file contents; the pending application as originally filed; or any document in the file of the pending application.
- (2) If the application is incorporated by reference or otherwise identified in a U.S. patent, a statutory invention registration, a U.S. patent application publication, or an international patent application publication in accordance with PCT Article 21(2), a member of the public may obtain a copy of the pending application as originally filed.

Signature

*Kenneth Slater*

Typed or printed name

Registration Number, if applicable

7034861150

Telephone Number

RECEIVED

NOV 07 2008

File Information Unit

11/7/08

Date

FOR PTO USE ONLY

Approved by:

*SL*

(initials)

Unit:

This collection of information is required by 37 CFR 1.11 and 1.14. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. BRING TO: File Information Unit, Room 2E04, 2900 Crystal Drive, Arlington, Virginia.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.



US006713610B1

36

(12) **United States Patent**  
Kucherlapati et al.

(10) **Patent No.:** US 6,713,610 B1  
(45) **Date of Patent:** Mar. 30, 2004

(54) **HUMAN ANTIBODIES DERIVED FROM IMMUNIZED XENOMICE**

WO	WO 93/12227	6/1993
WO	WO 94/00569	1/1994
WO	WO 94/02602	2/1994
WO	WO 94/25585	11/1994
WO	WO 96/34096	10/1996

(76) Inventors: Raju Kucherlapati, 8 Gracie La., Darien, CT (US) 06820; Aya Jakobovits, 2021 Monterey Ave., Menlo Park, CA (US) 94025; Daniel G. Brenner, 86 Central Ave., Redwood City, CA (US) 94601; Daniel J. Capon, 90 Woodridge Rd., Hillsborough, CA (US) 94010; Sue Klapholz, 76 Peter Cottus Cir., Stanford, CA (US) 94305

(\*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 52 days.

(21) Appl. No.: 09/614,092

(22) Filed: Jul. 11, 2000

**Related U.S. Application Data**

(60) Division of application No. 08/724,752, filed on Oct. 2, 1996, now Pat. No. 6,150,584, which is a continuation-in-part of application No. 08/430,938, filed on Apr. 27, 1995, now abandoned, and a continuation-in-part of application No. 08/234,145, filed on Apr. 28, 1994, now abandoned, and a continuation-in-part of application No. 08/112,848, filed on Aug. 27, 1993, now abandoned, and a continuation-in-part of application No. 08/031,801, filed on Mar. 15, 1993, and a continuation-in-part of application No. 07/919,297, filed on Jul. 24, 1992, now abandoned, and a continuation-in-part of application No. 07/610,515, filed on Nov. 8, 1990, now abandoned, and a continuation-in-part of application No. 07/466,008, filed on Jan. 12, 1990, now abandoned.

(51) Int. Cl. 7 ..... A61K 39/395; C07K 16/00

(52) U.S. Cl. ..... 530/388.23; 530/387.1; 530/388.1; 530/388.15; 424/130.1; 424/132.1; 424/141.1; 424/147.1; 424/145.1

(58) **Field of Search** ..... 530/350, 387.1, 530/388.1, 388.15, 388.23; 536/23.1; 435/320.1; 424/147.1, 145.1, 130.1, 141.1

(56) **References Cited**

**U.S. PATENT DOCUMENTS**

4,950,599 A	8/1990	Bertling	.....	435/456
4,959,313 A	9/1990	Taketo	.....	435/69.1
5,204,244 A	4/1993	Fell et al.	.....	435/68
5,286,647 A	2/1994	Handley et al.	.....	435/240.27
5,545,806 A	8/1996	Lonberg et al.	.....	800/802
5,545,807 A	8/1996	Surani et al.	.....	800/2
5,569,825 A	10/1996	Lonberg et al.	.....	800/2

**FOREIGN PATENT DOCUMENTS**

EP	0 298 807 A1	1/1989
EP	0 315 062 B1	5/1989
EP	0 322 240 B1	6/1989
EP	0 459 372 A3	12/1991
EP	0 463 151 B1	1/1992
WO	WO 90/04036	4/1990
WO	WO 91/00906	1/1991
WO	WO 91/10741	7/1991
WO	WO 92/03918	3/1992
WO	WO 92/22645	12/1992
WO	WO 93/05165	3/1993

**OTHER PUBLICATIONS**

Li et. al.; The I Binding Specificity of Human IgG and Complementary Determining Region 3, 1996, *J. Mol. Biol.* 256:577-589.\*

Albertson, et al., "Construction and characterization of a yeast artificial chromosome library containing seven haploid human genome equivalents," *Proc. Natl. Acad. Sci. U.S.A.* 87:4256-4260 (1990).

Aldhous, "Transgenic mice display a class (switching) activity," *Science* 262:1212-1213 (1993).

Ayres, et al., "Sequence homology requirements for intermolecular recombination in mammalian cells," *Proc. Natl. Acad. Sci. U.S.A.* 83:5199-5203 (1986).

Berman, et al., "Content and organization of the human Ig V<sub>H</sub> locus: definition of three new V<sub>H</sub> families and linkage to the Ig C<sub>H</sub> locus" *EMBO J.* 7:727-738 (1988).

Blankenstein, et al., "Immunoglobulin V<sub>H</sub> region genes of the mouse are organized in overlapping clusters" *Eur. J. Immunol.* 17:1351-1357 (1987).

Brinster, et al., "Introns increase transcriptional efficiency in transgenic mice," *Proc. Natl. Acad. Sci. U.S.A.* 85:836-840 (1988).

Brownstein, et al., "Isolation of single-copy human genes from a library of yeast artificial chromosomes", *Science* 244:1348-1351 (1989).

Bruggemann, et al., "A repertoire of monoclonal antibodies with human heavy chains from transgenic mice," *Proc. Natl. Acad. Sci. U.S.A.* 86:6709-6713 (1989).

Bruggemann, et al., "Construction, function and immunogenicity of recombinant monoclonal antibodies," *Behring Inst. Mitt.* 87:21-24 (1990).

Bruggemann, et al., "Human antibody production in transgenic mice: expression from 100 kb of the human IgH locus," *Eur. J. Immunol.* 21:1323-1326 (1991).

Bruggemann, et al., "Strategies for expressing human antibody repertoires in transgenic mice," *Immunology Today* 17:391-397 (1996).

Burke, et al., "Cloning of large segments of exogenous DNA into yeast by means of artificial chromosome vectors," *Science* 236:806-812 (1987).

Buttin, et al., "Exogenous Ig rearrangement in transgenic mice: a new strategy for human monoclonal antibody production," *Trends in Genetics* 3(8):205-206 (1987).

(List continued on next page.)

**Primary Examiner—Anne M. Wehbe**

(57) **ABSTRACT**

Fully human antibodies against a specific antigen can be prepared by administering the antigen to a transgenic animal which has been modified to produce such antibodies in response to antigenic challenge, but whose endogenous genes have been disabled. Various subsequent manipulations can be performed to obtain either antibodies per se or analogs thereof.